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EXAMINER

BARNES, CRYSTAL J

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/608,828

Applicant(s)

LINGEMANN, RONALD R.

Examiner

Crystal J. Barnes

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-72 is/are pending in the application.
4a) Of the above claim(s) 33-72 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-32 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☒ Claim(s) 1-72 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 27 June 2003.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152).
6) ☐ Other: _____.

DETAILED ACTION

1. The following is an initial Office Action upon examination of the above-identified application on the merits. Claims 1-72 are pending in this application.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-32, drawn to a building automation system, are classified in class 700, subclass 19.
 - II. Claims 33-43 and 60, drawn to a user interface unit for a building automation system, are classified in class 700, subclass 83.
 - III. Claims 44-50, drawn to a method of controlling appliances located in selected rooms in a building, are classified in class 700, subclass 11.
 - IV. Claims 51-56, 58 and 59, drawn to a method of programming a building automation system, are classified in class 717, subclass 172.
 - V. Claim 57, drawn to a method of installing a building automation system, is classified in class 700, subclass 22.

- VI. Claims 61-64, 66 and 67, drawn to a slave/remote control device for use in a building automation system, are classified in class 700, subclass 17.
- VII. Claim 65, drawn to a level control for use in a building automation system, is classified in class 700, subclass 13.
- VIII. Claims 68-72, drawn to licensing and copyright protection, are classified in class 705, subclass 57.

The inventions are distinct, each from the other because of the following reasons:

- 3. Inventions I and II are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the building automation system does not require a user interface unit capable of controlling three or more appliances. The subcombination has separate utility such as controlling plural controlled appliances.

4. Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the building automation system of invention I can be used in a process of programming the building automation system.

5. Inventions I and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the building automation system of invention I can be used in a process of controlling appliances in selected rooms of a building.

6. Inventions V and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different

process (MPEP § 806.05(f)). In the instant case the building automation system of invention I can be made by electrically connecting a user interface unit to a plurality of power drivers and electrical devices.

7. Inventions I and VI are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the building automation system does not require the software or firmware stored in the memory. The subcombination has separate utility such as slave devices for use in a building automation system.

8. Inventions I and VII are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because

the building automation system does not require a level control indicator. The subcombination has separate utility such as a dimmer switch.

9. Inventions I and VIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are a building automation system and business methods for licensing and enforcing copyrights.

10. Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as controlling three or more appliances. See MPEP § 806.05(d).

11. Inventions II and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a

materially different process of using that product (MPEP § 806.05(h)). In the instant case the user interface unit of invention II can be used to control three or more appliances in a building.

12. Inventions V and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the user interface unit of invention II can be made by simply connecting a processor to an electrical signal trunk.

13. Inventions II and VI are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as controlling three or more appliances. See MPEP § 806.05(d).

14. Inventions II and VII are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II

has separate utility such as controlling three or more appliances. See MPEP § 806.05(d).

15. Inventions II and VIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are a user interface unit for use in a building automation system and business methods for licensing and enforcing copyrights.

16. Inventions III and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention IV has separate utility such as backing up a building automation system. See MPEP § 806.05(d).

17. Inventions III and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention V

has separate utility such as using a plurality of power lines to supply power to the power drivers. See MPEP § 806.05(d).

18. Inventions III and VI are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as controlling electrical appliances located in selected rooms in a building. See MPEP § 806.05(d).

19. Inventions III and VII are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention VII has separate utility such as a dimmer switch. See MPEP § 806.05(d).

20. Inventions III and VIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are a method of controlling appliances located in selected rooms in a building and business methods for licensing and enforcing copyrights.

21. Inventions IV and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention V has separate utility such as using a plurality of power lines to supply power to the power drivers. See MPEP § 806.05(d).

22. Inventions IV and VI are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention IV has separate utility such as backing up a building automation system. See MPEP § 806.05(d).

23. Inventions IV and VII are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention VII has separate utility such as a dimmer switch. See MPEP § 806.05(d).

24. Inventions IV and VIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are a method

of programming a building automation system and business methods for licensing and enforcing copyrights.

25. Inventions V and VI are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention V has separate utility such as using a plurality of power lines to supply power to the power drivers. See MPEP § 806.05(d).

26. Inventions V and VII are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention VII has separate utility such as a dimmer switch. See MPEP § 806.05(d).

27. Inventions V and VIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are a method of installing a building automation system and business methods for licensing and enforcing copyrights.

28. Inventions VI and VII are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention VII has separate utility such as a dimmer switch. See MPEP § 806.05(d).

29. Inventions VI and VIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are a slave/remote control device for use in a building automation system and business methods for licensing and enforcing copyrights.

30. Inventions VII and VIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are a level control for use in a building automation system and business methods for licensing and enforcing copyrights.

31. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

32. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Groups II-VIII, restriction for examination purposes as indicated is proper.

33. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

34. This application contains claims directed to the following patentably distinct species of the claimed invention II, claims 40-43, 60 and claimed invention IV, claims 51-56.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no generic claims are present.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a

listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

35. During a telephone conversation with Carl Forest, Reg. No. 28,494 on 22 February 2005 a provisional election was made without traverse to prosecute the invention of group I, claims 1-32. Affirmation of this election must be made by

applicant in replying to this Office action. Claims 33-72 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Information Disclosure Statement

36. The examiner is considering the information disclosure statements (IDS) submitted on 27 June 2003.

Drawings

37. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: figure 3 does not include reference number 150 (see page 19 line 15); figure 8 does not include reference number 127 (see page 22); and reference numbers 101 and 102 (see page 40 line 8).

38. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: reference number 178 in figure 2 (see page 16 lines 22-24); reference

number 218 in figures 2 and 3 (see page 18 line 20); reference number 248 in figure 3 (see page 18 lines 14-16); reference number 302 in figure 17 (see page 32 lines 29-31); reference numbers 350 in figure 18 and 400 in figure 19 (see page 42 lines 7-9); reference numbers 462 and 474 in figure 21 (see page 32 lines 1-17); reference numbers 616 and 618 in figure 22A (see page 44 lines 14-30); and reference numbers 692 and 694 in figure 22B (see page 49 lines 26-27).

39. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

40. The disclosure is objected to because of the following informalities:
reference number 20 on page 16 line 19 should be 201 (see page 16 line 7);
reference number 229 should be inserted on page 18 line 5 (see page 18 line 30);
reference number "219" has been used to designate both heated sidewalks and
driveway and pool/spa heaters on page 18 line 20; reference number 150 on page 19
line 1 should be 152 (see figure 3 and page 19 line 2); reference number 247 on
page 20 line 23 should be 175 (see figure 4 and page 20 line 1); reference number
281 on page 25 line 4 should be 251 (see page 23 line 17); reference number 456 on
page 30 line 24 should be 446 (see figure 20); and reference number 660 on page
48 lines 16 and 23 should be 661 (see figure 22B). Appropriate correction is
required.

Claim Rejections - 35 USC § 112

41. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

42. Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

43. Claim 32 recites the limitation "the same electrical signal trunk" in the last line. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

44. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

45. Claims 1, 3-5, 7 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 6,029,092 to Stein.

As per claim 1, the Stein reference discloses a building automation system comprising: a plurality of programmable user interface units (see column 12 lines

40-46, "network devices 122"), each of said user interface units ("network devices 122") located in a room (see column 14 lines 8-10, "zone") or associated area ("area") of a building ("building"); a plurality of power drivers (see column 9 lines 45-50, "device drivers, relays 38"), each of said power drivers ("relays 38") located in a room ("zone") or associated area ("area") of said building ("building"); a controller (see column 7 lines 49-54, "control system 10") comprising a processor ("central processor 12") and a memory (see column 7 lines 57-57-59, "memory 20"); and an electrical signal trunk (see column 7 lines 60-62, "power supply 22") connected to said controller ("control system 10"); wherein each of said user interface units ("network devices 122") and each of said power drivers ("relays 38") are connected to said electrical signal trunk ("power supply 22").

As per claim 3, the Stein reference discloses each of said user interface units (see column 13 lines 39-43, "audio matrix 122E") is capable of controlling each of said power drivers ("relay 38, CD player 132M").

As per claim 4, the Stein reference discloses further including an electrical circuit panel (see column 13 lines 22-26, "security panel") and an electrical power conductor (see column 13 lines 34-39, "circuit breaker") connected between said electrical circuit panel ("security panel") and each of said power drivers ("relays").

As per claim 5, the Stein reference discloses said electrical signal trunk ("power supply 22") is a low voltage control wiring (see column 13 lines 34-39, "low voltage controlled").

As per claim 7, the Stein reference discloses further including a plurality of electrical devices (see column 6 lines 5-9, "devices"), each of said electrical devices ("devices") electrically connected to one of said power drivers ("device drivers, relays 38"), said electrical devices ("devices") comprising a plurality of different types of devices (see column 8 lines 40-47, "devices") selected from the group consisting of lighting fixtures ("lighting task unit 54E"), fans, security systems ("security task unit 54B"), audio/video systems (home theater task unit 54A), heating systems ("HVAC task unit 54C"), air conditioning systems ("HVAC task unit 54C"), garage doors, garage door sensors (see column 8 lines 23-30, "sensors 34"), doorbells (see column 13 lines 49-51, "bells"), window controls, sprinkler controls, garage door openers ("gate opener 132E"), electronic gate openers ("gate opener 132E"), driveway heaters, sidewalk heaters, fireplace controls, intercoms, speakers (home theater task unit 54A), microphones (home theater task unit 54A), dampers ("HVAC task unit 54C"), digital cameras, hot water heaters (see column 3 lines 36-39, "water heater 132A"), telephones, aquarium controls ("pool pump 132C"), water

feature controls ("sump pump 132B"), pool/spa controls ("pool pump 132C"), fire protection systems, thermostats (see column 12 lines 63-65, "thermostat 122M"), and switched outlets.

As per claim 18, the Stein reference discloses each of said power drivers ("relays") control AC power (see column 13 lines 29-39, "power") to a plurality of electrical devices ("devices 132").

46. Claims 27, 29 and 32 are rejected under 35 U.S.C. 102(a) as being anticipated by US Pub. No. 2004/0260407 A1 to Wimsatt.

As per claim 27, the Wimsatt reference discloses a building automation system comprising: a controller (see pages 3-4 [0035], "personal computer 129") comprising a microprocessor ("conventional personal computers") and a memory ("conventional personal computers"); a plurality of programmable user interface units (see page 3 [0026, 0029], "control panels 101/107"), each of said user interface units ("control panels 101/107") located in a room (see page 3 [0026], "each bedroom, kitchen, office, entertainment areas") in a building ("house"); each user interface unit ("control panels 101/107") comprising: a touchscreen (see page 3 [0027], "touch-screen interface units"), a speaker (see page 5 [0046],

"integrated speakers"), and a microphone (see page 5 [0052], "intra-building communications"); each user interface unit (see page 4 [0037], "any control panels 101/107 (or PC 129)") is capable of controlling an electrical device ("any particular controlled devices") in a room ("each bedroom, kitchen, office, entertainment areas") in which said controller ("personal computer 129") is located; and each user interface unit (see page 4 [0036], "each control panel 101/107") is capable of controlling an electrical device ("any of the controlled device") in a room ("each bedroom, kitchen, office, entertainment areas") different than the room ("each bedroom, kitchen, office, entertainment areas") in which said controller ("personal computer 129") is located.

As per claim 29, the Wimsatt reference discloses each user interface unit ("control panels 101/107") further includes a motion detector (see page 5 [0046], "motion detectors").

As per claim 32, the Wimsatt reference discloses each user interface unit ("control panels 101/107") is connected to said controller ("personal computer 129") via the same electrical signal trunk (see page 3 [0028], "hub 103"; [0029], "wireless access point/router 105"; [0032], "physical, electrical, and signaling protocols").

Claim Rejections - 35 USC § 103

47. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

48. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,029,092 to Stein in view of US Pub. No. 2004/0249711 A1 to Walker et al.

As per claim 2, the Stein reference does not expressly disclose said user interface units include a touchscreen.

The Walker et al. reference discloses

(see page 4 [0065], "An input device may communicate with or be part of another device. Some examples of input devices include ... a touch-screen, a microphone, an infrared sensor ... a video camera, a motion detector, a digital camera ... a radio frequency identification (RFID) receiver, a RF receiver ...")

(see page 4 [0066], "An output device may communicate with or be part of another device. Possible output devices include ... an audio speaker, an infra-red transmitter, and a radio transmitter.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the network devices taught by the Stein reference to include the input/output devices taught by the Walker et al. reference.

One of ordinary skill in the art would have been motivated to modify the network devices to include the input/output devices as part of the network devices to further expand the capabilities of the control system.

49. Claims 2, 6, 8-11, 15 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,029,092 to Stein in view of US Pub. No. 2004/0260407 A1 to Wimsatt.

As per claim 2, the Stein reference does not expressly disclose said user interface units include a touchscreen.

The Wimsatt reference discloses
(see page 3 [0027], "... touch-screen interface units ... are suitable implementations for control panels 101 ...")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the network devices taught by the Stein

reference to include the touch-screen interface units taught by the Wimsatt reference.

One of ordinary skill in the art would have been motivated to modify the network devices to include the touch-screen interface units to further expand the capabilities of the control system for exercising home automation and control functions.

As per claim 20, the Wimsatt reference discloses said touchscreen (see page 3 [0027], "touch-screen interface units") displays a program screen object (see page 6 [0057], "control buttons" and page 7 [0062], "thermometer graphic") enabling the user to program ("program, HVAC scheduling") any controllable electrical device ("security system, cooling and heating system") in said building (see page 3 [0026], "building, house") or associated areas ("locations, rooms").

As per claim 21, the Wimsatt reference discloses said touchscreen displays screen objects for accessing three or more functions selected from the group consisting of: time (see fig. 4F), date (see fig. 4F), temperature (see page 6 [0058], "thermometer icon"), weather (see fig. 4A), security ("various control buttons"), intercom, audio ("speaker icon"), and sprinklers.

As per claim 6, the Stein reference does not expressly disclose said low voltage control wiring is CAT5 cable.

The Wimsatt reference discloses

(see page 4 [0044], "A network interface implements the resources required to support packet communication over, for example, a CAT-5, EEEE-4 or USB connection, for example. These functions are substantially similar to what might be found in a convention personal computer network interface card (NIC).")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the methods of communication taught by the Stein reference to incorporate other methods of communication taught by the Wimsatt reference.

One of ordinary skill in the art would have been motivated to modify the methods of communication to incorporate other methods of communication to support the flexibility of the control system by providing additional standards, protocols and mediums to communicate with external devices or systems.

As per claim 8, the Stein does not expressly disclose said user interface units include a button separate from said touchscreen, said button adapted to

control an electrical device in the room or associated area in which said user interface unit is located.

The Wimsatt reference discloses

(see page 6 [0058], "Common user interface elements include a series of buttons on the right-hand side of the display that initiate a transition to other screens. A lamp icon identifies a button that initiates a transition to a lighting control screen, while a speaker icon identifies a button that initiates a transition to the media control screen.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the network devices taught by the Stein reference to include the touch-screen interface units taught by the Wimsatt reference.

One of ordinary skill in the art would have been motivated to modify the network devices to include the touch-screen interface units to further expand the capabilities of the control system for exercising home automation and control functions.

As per claim 9, the Wimsatt reference discloses said electrical device is a lighting fixture (see page 6 [0058], "lamp icon").

As per claim 10, the Wimsatt reference discloses further including a light for illuminating said button (see page 5 [0045], "LED and push button").

As per claim 11, the Stein reference does not disclose further including a wireless remote control, wherein said wireless remote control controls only the electrical devices in the room in which it is located.

The Wimsatt reference discloses

(see page 3 [0029], "Wireless control panels 107 ... variety of wireless general-purpose computing devices ... as well as special purpose devices ... remote controls, key fobs ...")

(see page 4 [0037], "Each control panel 101/107 is aware of controlled devices and subsystems that it can directly access ...")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the network devices taught by the Stein reference to include the wireless control panels taught by the Wimsatt reference.

One of ordinary skill in the art would have been motivated to modify the network devices to include the wireless control panels to further expand the capabilities of the control system.

As per claim 15, the Wimsatt reference discloses said wireless remote control ("control panels 107") controls electrical devices (see page 4 [0037], "controlled") throughout said building (see page 3 [0026], "building, house").

As per claim 22, the Stein reference does not expressly disclose said user interfaces include a level control for controlling the level of power applied to an electrical device.

The Wimsatt reference discloses

(see page 7 [0063], "Temperature set points can be established in any of the zones by dragging the color bars to a desired level within the zone.")

(see page 7 [0065], "... controls for selecting various lights throughout a building, turning the selected lights on and off, dimming lights, and scheduling times for light-operations.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the network devices taught by the Stein reference to include the graphical user interface taught by the Wimsatt reference.

One of ordinary skill in the art would have been motivated to modify the network devices to include the graphical user interface to further expand the capabilities of the control system changing the manner in which user manipulated and entered data.

As per claim 23, the Wimsatt reference discloses said level control (see page 7 [0063], "graphical display") includes a bar graph device ("color bars") for indicating the power level ("temperature") at which said level control ("graphical display") is set.

As per claim 24, the Wimsatt reference discloses said electrical device is selected from the group consisting of a lighting fixture (see page 7 [0065], "dimming lights") and a motor (see page 7 [0063], "temperature set points").

50. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,029,092 to Stein in view of US Pub. No. 2004/0260407 A1 to Wimsatt as applied to claims 2, 6, 8-11, 15 and 20-24 above, and further in view of US Pub. No. 2003/0003876 A1 to Rumsey.

As per claim 12, neither the Stein reference nor the Wimsatt reference expressly discloses said wireless remote control further includes a selector

button, wherein operating said selector button changes the electrical device controlled by said wireless remote control.

As per claim 13, neither the Stein reference nor the Wimsatt reference expressly discloses selecting the up/down buttons adjusts the electrical output to said selected electrical device.

The Rumsey reference discloses

(see page 5 [0065], "A user selects buttons 652 associated with multimedia equipment to be controlled ... upon selecting one of the multimedia equipment types identified by buttons 652, remote control buttons 658 are now selectable to enable the PDA to issue commands to the multimedia equipment in order to adjust various features controlled by the multimedia equipment. These features may include, but are not limited or restricted to television or cable box volume control (Vol+, Vol-), stereo volume control (ST+, ST-), increment/decrement channel numbers or (CH+, CH-) ...")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the network devices taught by the Stein reference with the wireless control panels taught by the Wimsatt reference to include the exemplary embodiment of a PDA taught by the Rumsey reference.

One of ordinary skill in the art would have been motivated to further modify the modified network devices to include the exemplary embodiment of a PDA to increase both the capability and ease of use of the home/building automation system.

51. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,029,092 to Stein in view of US Pub. No. 2004/0260407 A1 to Wimsatt as applied to claims 2, 6, 8-11, 15 and 20-24 above, and further in view of US Pub. No. 2003/0128539 A1 to Liu.

As per claim 14, neither the Stein reference nor the Wimsatt reference expressly discloses said wireless remote control further includes a flashlight and a flashlight activation button.

The Liu reference discloses

(see page 2 [0018], "A first and a second touch switch 32a, 32b ... two lamps 33a and 33b ... A third touch switch 34 ... lamp 33a ... illuminator lamp adapted to project bright light ...")

(see page 2 [0022], "When the first push button 22a is depressed and held ... turns on the illuminator lamp 33a ...")

(see page 2 [0023], "... slide switch 23 ... illuminator lamp 33a ... ")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the network devices taught by the Stein reference with the wireless control panels taught by the Wimsatt reference to include the illuminating function taught by the Liu reference.

One of ordinary skill in the art would have been motivated to further modify the modified network devices to include the illuminating function as a convenience to enable the user to locate a keyhole or look for something in the dark.

52. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,029,092 to Stein in view of US Pub. No. 2004/0260407 A1 to Wimsatt as applied to claims 2, 6, 8-11, 15 and 20-24 above, and further in view of US Pub. No. 2004/0249711 A1 to Walker et al.

As per claim 16, neither the Stein reference nor the Wimsatt reference expressly discloses said wireless remote control transmits radio frequency (RF) signals.

As per claim 17, neither the Stein reference nor the Wimsatt reference expressly discloses said wireless remote control transmits infrared (IR) signals.

The Walker et al. reference discloses

(see page 4 [0066], "An output device may communicate with or be part of another device. Possible output devices include ... an audio speaker, an infra-red transmitter, and a radio transmitter.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the network devices taught by the Stein reference with the wireless control panels taught by the Wimsatt reference to include the output devices taught by the Walker et al. reference.

One of ordinary skill in the art would have been motivated to further modify the modified network devices to include the output devices as part of the modified network devices to provide additional output devices where desired for particular applications.

53. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,029,092 to Stein in view of USPN 5,086,385 to Launey et al.

As per claim 19, the Stein reference does not expressly disclose said touchscreen displays a scene screen object for controlling a plurality of said electrical devices with a single touch.

The Launey et al. reference discloses

(see column 22 lines 5-8, "Moods are macroinstructions of multiple commands that allow single commands to set an entire living environment in the home, such as all the lighting and music for an evening party.")

(see column 55 lines 52-56, "Various predetermined settings can be chosen by selecting scenes 1-4, which actuate the lights and drapes according to predetermined data in a manner similar to that discussed in connection with the lighting moods sub-menu touchscreen.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the network devices taught by the Stein reference to include the graphical user interface taught by the Launey et al. reference.

One of ordinary skill in the art would have been motivated to modify the network devices to include the graphical user interface to provide capability to the user to interact with and control a home/building in a variety of modes in order to increase both the capability and ease of use of the home/building automation system.

54. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,029,092 to Stein in view of US Pub. No. 2004/0260407 A1 to Wimsatt as applied to claims 2, 6, 8-11, 15 and 20-24 above, and further in view of US Pub. No. 2003/0011467 A1 to Suomela.

As per claim 25, neither the Stein reference nor the Wimsatt reference expressly discloses said touchscreen displays a rooms screen object for displaying a listing of said rooms and associated areas of said building.

As per claim 26, neither the Stein reference nor the Wimsatt reference expressly discloses said touchscreen displays a screen object for displaying a list of all controllable electrical devices in said rooms and associated areas of said building.

The Suomela reference discloses

(see page 3 [0040], "... lists of the ubiquitous devices located in a particular room, rather than the display of a map representation of the room together with an indication on the map of icons representing the location of the devices in the room.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to further modify the network devices taught by the

Stein reference with the wireless control panels taught by the Wimsatt reference to include the screen displays taught by the Suomela reference.

One of ordinary skill in the art would have been motivated to further modify the modified network devices to include the screen displays to provide a variety of functions to increase both the capability and ease of use of the home/building automation system.

55. Claims 28, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pub. No. 2004/0260407 A1 to Wimsatt in view of US Pub. No. 2004/0249711 A1 to Walker et al.

As per claim 28, the Wimsatt reference does not expressly disclose each user interface unit further includes a camera.

As per claim 30, the Wimsatt reference does not expressly disclose at least one user interface unit receives radio frequency (RF) signals.

As per claim 31, the Wimsatt reference does not expressly disclose at least one user interface unit receives infrared (IR) signals.

The Walker et al. reference discloses

(see page 4 [0065], "An input device may communicate with or be part of another device. Some examples of input devices include ... a touch-screen, a microphone, an infrared sensor ... a video camera, a motion detector, a digital camera ... a radio frequency identification (RFID) receiver, a RF receiver ...")

(see page 4 [0066], "An output device may communicate with or be part of another device. Possible output devices include ... an audio speaker, an infra-red transmitter, and a radio transmitter.")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the control panels taught by the Wimsatt reference to include the input/output devices taught by the Walker et al. reference.

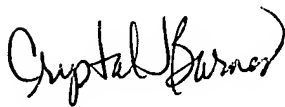
One of ordinary skill in the art would have been motivated to modify the control panels to include the input/output devices as part of the control panels to provide additional input/output devices where desired for particular applications.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes whose telephone number is

571.272.3679. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571.272.3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CJB

18 March 2005